RG104 Box 143 January 1887

Wilson Brothers & Co.
Civil Engineers and Architects,
No. 435 Chestnut St.
Philadelphia, Pa.

JOHN A. WILSON, Civil Engineer.
JOS. M. WILSON, Civil Engineer & Archt
FRED. G. THORN, Architect.

~~CHICAGO OFFICE, 243 STATE ST.~~

January 15th. 1887

Hon. Daniel M. Fox

Supt. United States Mint, Philada.

Dear Sir:

In accordance with your request we herewith submit schedule of the Proposals opened by you at noon this day, for Engines and Boilers as per specifications issued and advertisement dated Jan. 3rd. 1887.

BOILERS.

But one proposal for boilers was received, ie:-Edge Moor Iron Co. who proposed to do the work required for.....$14.900.00

The proposal is accompanied by full plans and specifications and are in accordance with instructions to bidders.

The cost of the work as per their proposal is $100.00 less than our estimate of the same work as per our letter to you of November 15th. 1886, we therefore recommend that the contract for Boilers etc. be awarded to the Edge Moor Iron Company.

ENGINES

Two proposals in accordance with the advertisement were received for Engines; one from Robert Wetherill & Co. of Chester, Penna. The other from Kensington Engine Works, Philada.

These proposals are accompanied by detailed specifications and plans; a comparison of the data contained therein is herewith submitted.

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Hon. Danl. M. Fox - January 15th. 1887

DESCRIPTION.	ROBT. WETHERILL & CO.	KENSINGTON ENG. WKS.
Kind of Engine	Horizontal Corliss	Buckeye Automatic
Economy, lbs. of coal required per Horse Power per hour	3 lbs.	3 lbs
Range of Horse Power ~~above that specified~~	75 per HP. each above that specified.	113 H.P. to 187 HP each-economically
Speed of Engines, rev. per minute	70	92
Diameter of Cylinders-inches	20	18
Length of Stroke ,,	42	32
Cut-off in parts of stroke	1/5	1/4
Diameter of steam pipe-inches	6	6
Diameter of exhaust pipe- ,, ,,	7	7
Dimensions of Driving Pulley		
Diameter-inches	144	110
Face ,,	32	42
Width of Belt-inches	30	40
Kind of Belt	Best 'Double'	Best 'Double'

The specifications under which the proposals were received requires the contractor to repair and erect on new foundations old Engine No. 2

Robert Wetherill & Co. propose to furnish the new engine and repair and move old Engine No. 2 for $9.350.00

The Kensington Engine Works divide their bid as follows:

For 2-150 Horse Power Engines, foundations and belt $7.870.00

Repairs to and removal of No. 2 Engine..... $1.060.00

Underpinning 4 columns and providing four dressed granite plinths 348.00

Total of Kensington Engine Works bid..... $9.278.00

making the Kensington Engine Works bid the lowest.

In answer to a question, the representative of Robert Wetherill & Co. stated, that their proposal did not include the granite plinths under columns. To make a correct comparison of the two proposals and the cost to the United States resulting from the acceptance of

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Hon. Danl. M. Fox - January 15th. 1887

either of the bids we should add at least $60.00 to Wetherill's bid to cover the cost of granite plinths, making the comparison as follows.

Robert Wetherill & Co.	$9.410.00
Kensington Engine Works	$9.278.00
Difference in favor of Kensington Engine Works bid	$ 132.00

The proposal of the Kensington Engine Works is $222.00 less than our estimate submitted to you November 15th. 1886. We therefore find that the proposal from the Kensington Engine Works is a fair price and at the same time the lowest bid.

In order to determine which of the two propsals is the best for your purpose, we present the following facts.

1st.-The kind of engines proposed are well known and the Companies submitting the proposals both have excellent reputations.

2nd.-The economy guaranteed is the same both proposals, ie:-a consumption of 3 pounds of coal per horse power per hour; although the Kensington Engine Co. give us an example of higher duty.

There are several points in which the Kensington Co's engines have the advantage over that of the engines proposed by Robt. Wetherill & Co.

1st:-Robert Wetherill proposes a belt of but 30 inches wide, which in our judgement is not sufficient to transmit the power of the 2 engines when running together. The belt proposed by the Kensington Engine Co. has a width of 40 inches and will consequently transmit at least fifty per cent more power than that proposed by Robert Wetherill

2nd:-The clear space between the engine and the driving pulley on the jack shaft is in the Kensington engine 4ft. 5in. and in the Wetherill engine but 2ft. 9in., not sufficient without danger to the engineer to permit of a safe passage to and from the working parts of the engine.

3rd:-The clear space between the North wall of the engine room

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(which is one of the main walls of the Mint building)and the driving pulley of the engine is in the Kensington engine,3ft.6in. and the same distance to the foundation masonry;while the Wetherill engine gives but six inches between this wall and the driving pulley,and the same distance to the foundation masonry.

The arrangement proposed by the Robert Wetherill & Co's plan will require the above mentioned wall to be underpinned for a considerable length,which at best is a hazardous operation and should if possible be avoided. We are therefore of the opinion that the proposal submitted by the Kensington Engine Co. is not only the lowest but also the best,and we would therefore recommend that the contract be awarded to them.

We herewith return to you all of the Proposals,plans and specifications relating to the above mentioned work.

Respectfully Submitted,

Wilson. Thos & Co

NARA RG104, Entry 1, Box 143

Wilson Brothers & Co.
Civil Engineers and Architects,
Philadelphia, Pa.
January 15, 1887

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Hon. Danl. M. Fox – January 15th, 1887

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Total of Kensington Engine Works bid	$9,278.00

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3rd: -The clear space between the North Wall of the engine room (which is one of the main walls of the Mint building) and the driving pulley of the engine is in the Kensington engine, 3 ft. 6 in. and the same distance to the foundation masonry; while the Wetherill engine gives but six inches between this wall and the driving pulley, and the same distance to the foundation masonry.

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